

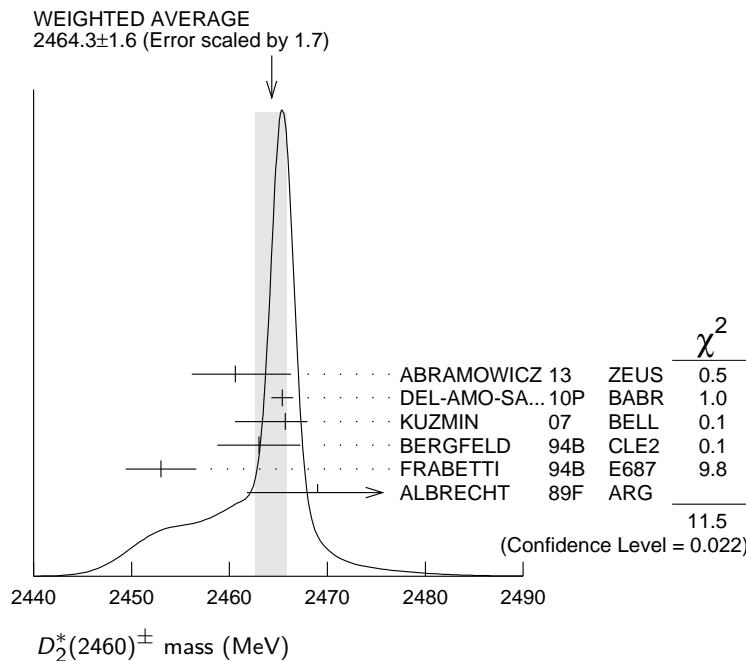
$D_2^*(2460)^\pm$ $I(J^P) = \frac{1}{2}(2^+)$ $J^P = 2^+$ assignment strongly favored(ALBRECHT 89B). **$D_2^*(2460)^\pm$ MASS**

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
2464.3±1.6 OUR AVERAGE				Error includes scale factor of 1.7. See the ideogram below. [2464.4 ± 1.9 MeV OUR 2012 AVERAGE Scale factor = 1.9]
2460.6±4.4 ^{+3.6} _{-0.8}	1371	1 ABRAMOWICZ13	ZEUS	$e^\pm p \rightarrow D^{(*)} 0 \pi^+ X$
2465.4±0.2±1.1	111k	2 DEL-AMO-SA...10P	BABR	$e^+ e^- \rightarrow D^0 \pi^+ X$
2465.7±1.8 ^{+1.4} _{-4.8}	2909	KUZMIN	07	BELL $e^+ e^- \rightarrow \text{hadrons}$
2463 ± 3 ± 3	310	BERGFELD	94B CLE2	$e^+ e^- \rightarrow D^0 \pi^+ X$
2453 ± 3 ± 2	185	FRABETTI	94B E687	$\gamma \text{Be} \rightarrow D^0 \pi^+ X$
2469 ± 4 ± 6		ALBRECHT	89F ARG	$e^+ e^- \rightarrow D^0 \pi^+ X$
• • • We do not use the following data for averages, fits, limits, etc. • • •				
2467.6±1.5±0.8	3.5k	3 LINK	04A FOCS	γA

¹ From the fit of the $M(D^0 \pi^+)$ distribution. The widths of the D_1^+ and D_2^{*+} are fixed to 25 MeV and 37 MeV, and A_{D_1} and A_{D_2} are fixed to the theoretical predictions of 3 and -1, respectively.

² At a fixed width of 50.5 MeV.

³ Fit includes the contribution from $D_0^*(2400)^\pm$. Not independent of the corresponding mass difference measurement, $(m_{D_2^*(2460)^\pm}) - (m_{D_2^*(2460)^0})$.

 **$m_{D_2^*(2460)^\pm} - m_{D_2^*(2460)^0}$**

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
2.4±1.7 OUR AVERAGE			
3.1±1.9±0.9	LINK	04A FOCS	γA
- 2 ± 4 ± 4	BERGFELD	94B CLE2	$e^+ e^- \rightarrow \text{hadrons}$
0 ± 4	FRABETTI	94B E687	$\gamma \text{Be} \rightarrow D \pi X$
14 ± 5 ± 8	ALBRECHT	89F ARG	$e^+ e^- \rightarrow D^0 \pi^+ X$

 $D_2^*(2460)^\pm$ WIDTH

NODE=M150

NODE=M150

NODE=M150M

NODE=M150M

NEW

NODE=M150M;LINKAGE=AB

NODE=M150M;LINKAGE=DE

NODE=M150M;LINKAGE=LI

NODE=M150DM

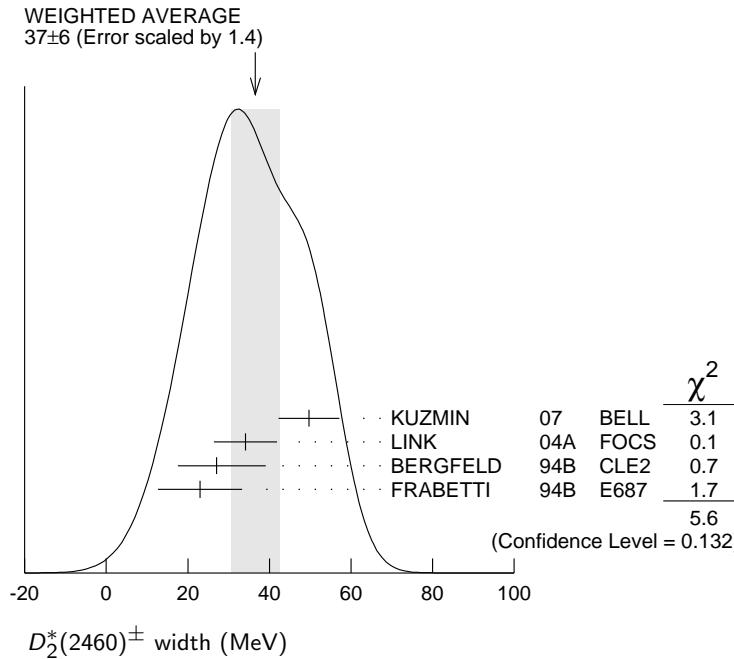
NODE=M150DM

NODE=M150W

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
37 ± 6 OUR AVERAGE				Error includes scale factor of 1.4. See the ideogram below.
49.7± 3.8±6.4	2909	KUZMIN	07	BELL $e^+ e^- \rightarrow \text{hadrons}$
34.1± 6.5±4.2	3.5k	4 LINK	04A	FOCS γA
27 ± 11 ± 5	310	BERGFELD	94B	CLE2 $e^+ e^- \rightarrow D^0 \pi^+ X$
23 ± 9 ± 5	185	FRABETTI	94B	E687 $\gamma Be \rightarrow D^0 \pi^+ X$

⁴ Fit includes the contribution from $D_0^*(2400)^\pm$.

NODE=M150W



NODE=M150W;LINKAGE=LI

$D_2^*(2460)^\pm$ DECAY MODES

$D_2^*(2460)^-$ modes are charge conjugates of modes below.

Mode	Fraction (Γ_i/Γ)
$\Gamma_1 D^0 \pi^+$	seen
$\Gamma_2 D^{*0} \pi^+$	seen
$\Gamma_3 D^+ \pi^+ \pi^-$	not seen
$\Gamma_4 D^{*+} \pi^+ \pi^-$	not seen

NODE=M150215;NODE=M150

NODE=M150

$D_2^*(2460)^\pm$ BRANCHING RATIOS

$\Gamma(D^0 \pi^+)/\Gamma_{\text{total}}$	DOCUMENT ID	TECN	COMMENT	Γ_1/Γ
seen	ALBRECHT	89F	$e^+ e^- \rightarrow D^0 \pi^+ X$	

DESIG=1

DESIG=2;OUR EST; \rightarrow UNCHECKED \leftarrow
 DESIG=3;OUR EST; \rightarrow UNCHECKED \leftarrow
 DESIG=4;OUR EST; \rightarrow UNCHECKED \leftarrow

NODE=M150220

NODE=M150R1
NODE=M150R1

$\Gamma(D^0 \pi^+)/\Gamma(D^{*0} \pi^+)$	DOCUMENT ID	TECN	COMMENT	Γ_1/Γ_2
1.2±0.4 OUR AVERAGE				
[1.9 ± 1.1 OUR 2012 AVERAGE]				
1.1±0.4 ^{+0.3} _{-0.2}	1371	5 ABRAMOWICZ13 ZEUS	$e^\pm p \rightarrow D^{(*)0} \pi^+ X$	
1.9±1.1±0.3		BERGFELD 94B CLE2	$e^+ e^- \rightarrow \text{hadrons}$	

NODE=M150R2
NODE=M150R2
NEW

⁵ From the fit of the $M(D^0 \pi^+)$ distribution. The widths of the D_1^+ and D_2^{*+} are fixed to 25 MeV and 37 MeV, and A_{D_1} and A_{D_2} are fixed to the theoretical predictions of 3 and -1, respectively.

NODE=M150R2;LINKAGE=AB

$\Gamma(D^0\pi^+)/[\Gamma(D^0\pi^+) + \Gamma(D^{*0}\pi^+)]$	$\Gamma_1/(\Gamma_1+\Gamma_2)$			
VALUE	EVTS	DOCUMENT ID	TECN	COMMENT
• • • We do not use the following data for averages, fits, limits, etc. • • •				
0.62±0.03±0.02	3361	⁶ AUBERT	09Y BABR	$\bar{B}^0 \rightarrow D_2^{*+} \ell^- \nu_\ell$
⁶ Assuming $\Gamma(\gamma(4S) \rightarrow B^+ B^-) / \Gamma(\gamma(4S) \rightarrow B^0 \bar{B}^0) = 1.065 \pm 0.026$ and equal partial widths for charged and neutral D_2^* mesons.				

$D_2^*(2460)^{\pm}$ REFERENCES

ABRAMOWICZ 13	NP B866 229	H. Abramowicz <i>et al.</i>	(ZEUS Collab.)	REFID=54743
DEL-AMO-SA... 10P	PR D82 111101	P. del Amo Sanchez <i>et al.</i>	(BABAR Collab.)	REFID=53534
AUBERT 09Y	PRL 103 051803	B. Aubert <i>et al.</i>	(BABAR Collab.)	REFID=52929
KUZMIN 07	PR D76 012006	A. Kuzmin <i>et al.</i>	(BELLE Collab.)	REFID=51854
LINK 04A	PL B586 11	J.M. Link <i>et al.</i>	(FOCUS Collab.)	REFID=49775
BERGFELD 94B	PL B340 194	T. Bergfeld <i>et al.</i>	(CLEO Collab.)	REFID=44099
FRABETTI 94B	PRL 72 324	P.L. Frabetti <i>et al.</i>	(FNAL E687 Collab.)	REFID=43687
ALBRECHT 89B	PL B221 422	H. Albrecht <i>et al.</i>	(ARGUS Collab.)	REFID=40736
ALBRECHT 89F	PL B231 208	H. Albrecht <i>et al.</i>	(ARGUS Collab.)	REFID=40931

NODE=M150R01
NODE=M150R01

NODE=M150R01;LINKAGE=AU

NODE=M150